

5     HIGH SPEED, AUTOMATED, CONTINUOUS FLOW, MULTI-DIMENSIONAL  
          MOLECULAR SELECTION AND ANALYSIS

Abstract of the Disclosure

10     The invention provides novel methods for screening a sample to select a ligand  
to a target of interest and for obtaining information about the ligand and its binding  
characteristics. Specifically, the claimed multi-dimensional methods involve combining  
a solution of heterogeneous ligands with the target of interest to screen the ligands on  
the basis of one or more binding characteristics. Ligands having the first binding  
characteristic bind to the target of interest thereby to form a target/ligand complex. The  
15     complex then optionally is separated from the unbound components using any of a  
variety of separation techniques, e.g., size exclusion. At least one of the complex or  
unbound components then is introduced to a second "dimension". The second  
dimension is capable of separating components based upon a second binding  
characteristic. One then elutes the ligand having the desired binding characteristics.